



Volume 16, No. 4

April, 1965

SEVENTH ANNUAL MONTANA "AIRPORT MANAGEMENT MEETING"

The Montana Airport Management Association will hold a one day meeting in Helena at the Holiday Inn on May 17. All Airport Managers and Airport Board Members are urged to attend. The object of the MAMA is to benefit all airport administrators through a knowledge exchange and the discussion of various airport matters and problems which concern all airports in the State of Montana.

The meeting will be conducted by Ed Swetish, Acting President of the organization, who is airport manager at the Beaverhead County Airport at Dillon.

Main topics of discussion will be acquisition of surplus equipment, the FAA preliminary engineering grant, Montana Aeronautics Commission preliminary engineering grant, airport program, airport zoning, the HHFA 701 planning program, airport authority vs. airport board, possible necessary legislation for airports, agriculture on airports and general airport maintenance. A general discussion period will be held on any open topics.

The meeting will commence at 8:30 a. m. and end at 5:00 p. m.

Two coffee breaks and a luncheon will be held.

1965 REGISTRATION DEADLINE IS HERE!!

Pilot Registration Card MONTANA - 1965

Registration No. _____

F. A. A. Certificate Number

ISSUED TO

Signature

1965

(Not valid unless signed)

The above named airman is authorized to operate aircraft in this State subject to the Laws of Montana and the limitations imposed by Federal authority.

Montana Aeronautics Commission.

Date.....



3

44098

Expires 12/31/65

Chairman.

HAVE YOU BEEN ISSUED THIS CARD FOR 1965?

Pilot registration is due in January of each year and the deadline is April 1st. State regulations for pilot registration state that all pilots operating aircraft in Montana register their FAA airman certificate annually, on or before April 1, with the Office of the Montana Aeronautics Commission. Registration will be on an approved form provided for this purpose. The registration fee is \$1.00. A registration certificate will be issued as evidence

of compliance. Pilot registration is required by student pilots, private, commercial and airline transport pilots who are not engaged in scheduled interstate airline operations.

It is further required that all pilots operating aircraft for the distribution of chemicals, seeds or bait be registered annually at the office of the Montana Aeronautics Commission. Registration will be made on the re-

(Continued on Page 2, Col. 3)

Official Monthly Publication
of the
**MONTANA AERONAUTICS
COMMISSION**

Box 1698
Helena, Montana

Tim Babcock, Governor

Charles A. Lynch, Director

Gordon Hickman, Chairman
Walter Hope, Vice Chairman
Carl W. (Bill) Bell, Secretary
Herb Jungemann, Member
E. B. Cogswell, Member
Clarence R. Anthony, Member
Jack R. Hughes, Member



DIRECTORS COLUMN



"SO YOU THOUGHT IT WAS FREE"

Most buyers in a free competitive market usually have a free choice of "what" they want to buy. When you do in fact buy, then the courts have held that you "must" pay—but the buyer still maintains the choice of "whether or not to buy in the first place."

We are now faced with a new concept. We have been buying for years (but we didn't know it), now the bill is being presented for payment.

While going for the ride, we have asked for more services, more facilities, longer runways, sophisticated systems and all the while building up the annual "operations" costs, though thinking these services free of special costs.

Now that the "system" has been built and the "cost peg is high on the wall" we are asked to pay. And, we are told to pay only a small portion of our fair share of the total operations of the system, based on the general aviation percentage of total flying and total airway usage.

But—What is the general aviation "fair share" of the annual operations costs of that part of the total overall system which general aviation asked for?

Did general aviation ask for the extra four thousand feet of the eight thousand foot runway, the TACAN

installations, the Radomes, the towers and the staffs? Oh yes, the crews, the large percentage of total personnel needed to service the small percentage of total traffic. Who asked for (and bought) that?

The administrations big push for user charges is now on, now on the floors of Congress. Fuel taxes on civil aviation fuels, excise taxes on airline fares, 2% tax on waybills for air freight, are but a few of the new approaches. Four cents a gallon on fuel to general aviation and two cents to airlines is the proposed scale. These are only the ones to come from Congress. The Executive Department by Administrative action need not go to the Congress to assess additional user charges for services performed such as charges for certificates, inspections and other various services.

The overall proposal looks something like this:

Total administration cost of the airways, \$565,000,000.

Military share, \$161,000,000.

Air Carrier share, \$256,000,000.

General Aviation share, \$148,000,000.

We are told the fuel taxes proposed will only recover 9% of the General Aviation shares of the airway costs.

We are further advised that the Agency (FAA) did not originate taxes. True, brother, true, but who originated the costs?

GREAT FALLS HANGAR SPONSORS FLIGHT FOR "MARCH OF DIMES"

On March 21st the Great Falls Hangar of the Montana Pilots Association sponsored a 2½ cents a pound flight for the 1965 March of Dimes Fund.

Original plans were to have the flights for the one day only, however, the weather "moved in" that afternoon and brought the flights to a premature finish for the day. Plans are now to continue the project the week-end of April 10th and 11th with the hope being that they will be able to top their 1964 donation of \$500.

Approximately \$100 was made on the 21st for the fund by six aircraft before the cancellation when the waiting line of pilots and customers had to be turned away.

The pilots for the 21st were: Ed O'Haire, Tom Messelt, Marlin Wagner, Bill Kidd, Ed Ellis and Doc McKay.

(Continued from Page 1)

verse side of the registration form and the registration certificate will be stamped accordingly by the Commission.

Pilots who are registering for the first time will receive a copy of the Airport Directory while pilots re-registering will receive the latest revisions for their directories.

The registration monies collected are deposited in the Air Search and Rescue fund and used to defray fuel and oil costs during searches.

Registration information is used by the Commission to plan and better serve aviation interests in Montana and is the basis of our mailing list for the monthly newsletter. This mailing list will be revised as of May 1, non-registrants will be deleted as of that date.

FLY LEGAL—REGISTER TODAY!

CHART REVISION INFORMATION NEEDED

The Montana Aeronautical Commission is in the process of revising their Aeronautical Chart and we are presently compiling the information on Rancher-Farmer airports throughout the state. A questionnaire will be mailed out in the near future regarding farmer-rancher strips shown on the current chart, however, we realize there are a number of strips which have been altered or added that we may not reach with our questionnaire, therefore, we are requesting that any person having a ranch-farm airstrip in Montana, write to the Montana Aeronautics Commission, P. O. Box 1698, Helena, and state whether or not they desire their strip to be depicted on the new Aeronautical Chart.

If you do wish to be depicted, it is necessary that the following information be supplied to us: The exact location of the strip (including section, township and range), the (length and width of runway), approach areas and the type of strip (grass, gravel, sod, etc.). Please state whether you encourage or discourage aircraft landing at your airstrip.

The most accurate method of showing the location would be to mark your strip on an Aeronautical Chart and enclose this with your description. If you do use this method, the Montana Aeronautics Commission will forward you a replacement chart immediately.

We would appreciate your immediate reply as this revision information must be compiled by May 1, 1965.

"A CASE IN POINT"

By Charles Smith
Commission Attorney

"SAFETY VIOLATION— NEGLECT IN OPERATION OF AIRCRAFT"

In a recent action arising out of a mid-air collision of two privately owned aircraft, a United States District Court entered judgment for the plaintiff and the defendant appealed.

In that case the plaintiff brought the action against the defendant for property damage resulting from the mid-air collision between plaintiff's airplane and an airplane of the defendant while approaching an airport preparatory to landing.

Plaintiff alleged negligence on the part of defendant for failure to yield the right-of-way and failure to keep a proper lookout. Defendant denied all the material allegations of the complaint with the exception of the allegation that defendant's pilot was in the course of his employment. The defendant counterclaimed, alleging negligence on the part of the plaintiff as the cause of the collision and sought recovery for damage to its aircraft. The plaintiff then denied the counterclaims of the defendant.

Both pilots were killed; however, this action involved only the issue of property damage to the demolished aircraft. Both aircraft were light, single engine planes, the plaintiff's being a Cessna 210 and the defendant's a Cessna 195.

The airport where the parties planes intended to land had no tower control and the runway use was indicated on a wind T, an indicator on the ground in the shape of an airplane pointing into the wind on the runway to be utilized. The collision occurred in the late afternoon as both planes approached runway 18 for landing. The visibility at the time was described as unlimited. There was only a very light wind—5 to 7 miles per hour—which had no effect on the aircrafts' operation.

The collision was witnessed by several persons on the ground and in other airborne aircraft. It was undisputed that defendant's plane approached the landing strip from a higher altitude and from the rear of plaintiff's plane. It contacted plaintiff's plane from above, shearing the tail fuselage of plaintiff's plane, and resulting in both planes plummeting

to the ground. Defendant contended that plaintiff's plane began its descent for landing beneath the minimum altitude prescribed by local and federal regulations and was in an improper, "straight-in approach" position at the time of the collision making it impossible to be seen by defendant's pilot due to the inherent design of the defendant's plane.

Pursuant to Civil Air Regulations, Sec. 60.14 (d), an aircraft that is being overtaken has the right-of-way. The overtaking aircraft, whether climbing, descending, or in horizontal flight, shall keep out of the way of the other aircraft by altering its course to the right, and no subsequent changes in the relative positions of the two aircraft shall absolve the overtaking aircraft from this obligation until it is entirely passed and clear. In addition, Sec. 60.14 (e) provides that aircraft while on the final landing approach have the right-of-way over other aircraft and when two or more aircraft are approaching an airfield for a landing the aircraft at the lower altitude has the right-of-way.

In view of the foregoing, the jury found that the plaintiff has been negligent and the United States Court of Appeals found that there was substantial evidence to justify that verdict. Therefore, the judgement of the trial court was affirmed.

MAC NEW STAFF MEMBERS



**Deloris Richeson—Secretary to
the Director**

Deloris was born and raised in Helena and following high school graduation was employed in the office of the Secretary of State. Deloris left Montana in 1956, moving to San Diego, California, where she was employed by Convair-Astronautics. From

1959 until February 1965, she worked for a San Diego attorney.

Deloris returned to Montana on March 1st and joined the MAC staff on March 15th as Secretary to the Director. Deloris' background and experience makes her extremely well qualified for her new position and the various responsibilities she will assume.

Deloris lists bowling and golf as her favorite hobbies and with a 12 year old son, who is a baseball enthusiast, she has added little league baseball to her hobby list.

Deloris and son Robert reside at 819 Fifth Avenue in Helena.



**Donna M. Duba—
Filing Stenographer**

Donna was born and raised in Columbus, Montana, and attended Montana State College in Bozeman.

Donna and husband Jay enjoyed 6 years in Arizona where they were self employed in a retail business. In 1959 they returned to Montana and moved to Helena when Jay became a Designer for the Montana State Highway Department.

Donna was employed by Montana Aeronautics Commission in January of 1965 as Filing Stenographer, filling the position left when Joyce McKenzie resigned to be married. Donna is a pleasant and willing-to-work addition to our office.

Donna is currently President of the Ladies League at the Bill Roberts Golf Course and tells us that golf is her Number 1 hobby.

The Dubas and their 3 children, two teenage boys and a six year old daughter, reside at 833 Breckenridge in Helena.

WANTED TO BUY: 4-place Cessna 170 A, or B, or 180. Contact: Alan Hyde, 269 4th Ave., Salt Lake City, Utah.

CESSNA'S NEW AGRICULTURAL AIRPLANE MAKES MAIDEN FLIGHT



The new Cessna Agwagon

The maiden flight of a new single-engine agricultural airplane was made in Wichita, Kansas, February 19, by Cessna Aircraft Company.

The new airplane, which has been named the Cessna Agwagon, has been developed by the company as an entry into the rapidly growing market for aerial application of agricultural chemicals in either spray or dust form.

Production plans for the new aircraft will be determined after a test program on the prototype has been conducted under a wide variety of actual operating conditions, according to V. G. Weddle, Commercial Division vice-president and general manager.

Cessna decided to build the airplane after an extensive market research study had defined the type of aircraft that aerial applicators needed and wanted.

"The Agwagon was developed to meet the aerial applicators' own desires for such features as speed, loads, dispersal rates, price and aircraft configuration," Weddle added.

"One fact which caused Cessna to become interested in this market is that more than 30 percent of today's agricultural fleet of aircraft is 20 or more years old," Weddle stated. "These aircraft are becoming expensive to maintain because of a shortage of spare parts and many of them are being used solely to provide parts for other aircraft of the same type."

"With the Agwagon," he said, "Cessna will have a modern airplane incorporating all the design advances which have been made in the agricultural aircraft field."

Recent Federal Aviation Agency statistics show that there are more than 4,000 aircraft being used in the U. S. alone for agricultural application. These aircraft fly an estimated 1,000,000 hours annually.



CALENDAR

April 7—Kalispell—MPA Local Hangar Meeting in the Hacienda Club. Jim Monger will be the main speaker.

April 11—Malta—MPA Local Hangar Meeting. Jack Wilson will be the main speaker.

April 13—Malmstrom A F B, Great Falls—8:30 A.M.-5:00 P.M. Airport Paving Seminar.

April 14—Helena—Montana Aeronautics Commission regular monthly meeting.

April 14—Dillon—Joint MPA-IPA of Dillon and Salmon, Idaho Hangers. To be held in the Terminal Building at the Beaverhead County Airport.

April 30-May 1 and 2—Lewistown—

MPA 1965 Annual Convention.

May 8—Spokane, Washington—Dedication Ceremony of the new air terminal of Spokane International Airport, 2:00 P.M. Saturday.

May 17—Helena—Montana Airport Management Association 7th Annual meeting to be held at the Holiday Inn.

May 26-27 & 28—Nassau Bahamas—The 15th all Women's International Air Race. Sponsored by the Bahamas Ministry of Tourism with the Florida Women Pilots Association directing. For additional information contact Mrs. Vera Brantz, Race Chairman, 1840 S. W. 85th Avenue, Miami, Florida.

June 12—West Yellowstone—Dedication of Yellowstone Airport and the inaugural flight of Western Airlines scheduled service. (Check May issue for full details.)

June 25, 26, & 27—Pendleton, Oregon—"The Pendleton 100." (Watch for further details).

July 24—Montana—The Second "Big Sky Race," sponsored by the Montana 99's. Open to all women pilots. (Watch for further details).

September 23, 24, & 25—Portland, Oregon—INAC Annual Fall Meeting.

October 2—Grand Haven, Michigan—The tenth annual Michigan Small Race, conducted in cooperation with the Michigan State Department of Aeronautics, and sponsored by the Michigan chapter of Ninety-Nines, international organization of licensed women pilots, will be held at Grand Haven Memorial Airpark. Women Pilots with a private license or better are eligible and are invited to enter the race which is a 200-mile round-robin challenge beginning the ending this year at Grand Haven. Contestants will be asked to fly the 200-mile course VFR (visual flight rules), and almost any type land plane is allowed.

October 11-13—Norman, Oklahoma—The National Airports Conference to be held at the center for Continuing Education University, University of Oklahoma. The conference is held under the joint sponsorship of the University of Oklahoma and the American Association of Airport Executives with the active support of the FAA. Persons, in all segments of the Aviation Industry, should endeavor to participate in this national conference.

MPA VISITATIONS MADE BY MAC STAFF MEMBERS

GREAT FALLS HANGAR

On March 8th, Mr. James Monger, Assistant Director for the MAC attended the monthly meeting of the Great Falls Hangar and spoke to the group on Airport Development for 1965 and 1966.

The meeting and buffet dinner was held at Victor's Supper Club at the Great Falls International Airport with approximately 30 members and their wives attending. President Kenneth Nelson conducted the meeting.

A discussion was held on the Hangars' sponsoring flights over the city for the local March of Dimes fund. \$500.00 was netted by the 2-½ cents a pound flights last year.

A report was given on the tentative schedule for the Hangar's summer fly-ins scheduled to start late in March and continuing on until fall with the majority of locations being at recreational airports around the state.

It was announced that the local hangar now owns a car which they intend to place at an airport for the use of any Montana Pilot Association member and the hope was expressed that this program will "catch on" with other hangars and become a statewide program with each courtesy car being sponsored by that local hangar.

CUT BANK HANGAR

Mr. Monger attended the meeting and pot luck dinner held by the Cut Bank Hangar on March 15. Mr. Monger spoke to the attending 36 members and their wives on Airport Development in Montana for 1965 and 1966. An informal question and answer period followed with a lengthy discussion being held on the proposed airport near East Glacier. During the business session of the meeting President Chet Sammons entertained many ideas on protesting to the FAA and the AOPA and the Congressional Delegation the proposed closure of the Flight Service Station at Cut Bank. The recent introduction of House Bill No. 347 was discussed and the group expressed its disappointment in the failure of this aircraft registration bill to pass into a law.

Mr. Jim Fisher from Browning drove through a blizzard to tell the Cut Bank group that the town of Browning is sponsoring a Unicom radio that will be located in their police station. He further stated that

anyone flying into the Starr School strip north of Browning should contact the Browning Unicom and they will dispatch a policy car to provide the pilot transportation from the airport.

It was urged that all members of the Hangar attend the State Convention in Lewistown.

President Chet Sammons was assisted by Secretary-Treasurer, Mrs. Kenneth Roush and Mr. Robert Anderson was program chairman.

GLENDIVE HANGAR

Mr. Jack Wilson, MAC Safety and Education Officer, visited the Glendive Hangar meeting on March 18th as feature speaker. President Robert Tomalino presided at the meeting attended by approximately 25 members.

In his address Mr. Wilson presented the outlook on the future navigation aids in the state of Montana and gave proposals for installations of new aids and the decommissioning of others. Jack covered airport development in Montana and gave proposals for future airports around the state.

Jack gave a resume of Search and Rescue procedures and examples of safety items relative to flying in Montana under adverse winter conditions.

An open question and answer period was held followed by luncheon refreshments.

Tentative plans were discussed for the local hangar to have a "get-together" in early May.

BUTTE HANGAR

Mr. Monger accepted the invitation to be guest speaker at the Butte Hangar meeting and election on March 28th. The noon meeting was held at Raymond's Dinner Club with approximately 26 pilots and wives attending.

Mr. Monger showed a film strip entitled "Flying is for Everyone" and gave a talk on Pleasure Flying in Montana.

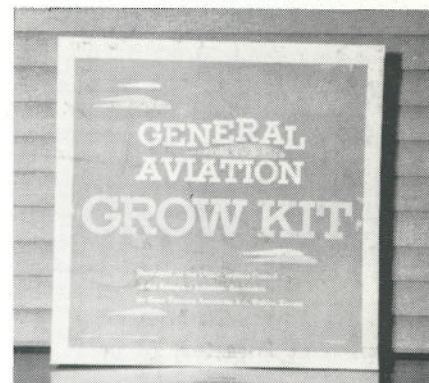
Out-going President Rex F. Henningsen conducted the meeting and urged all members to attend the annual convention in Lewistown.

Newly elected President Sid Groff gave a brief "state of the club" address. Ed Hardebeck was elected Vice President and Carol Overton, Secretary-Treasurer for the new term.

SCHEDULED

Mr. Monger is schedule to speak in Kalispell April 7th, and Mr. Wilson is scheduled to be the guest speaker in Malta on April 11th.

NOTE: AVIATION GROUPS AND ORGANIZATIONS



The Montana Aeronautics Commission has available for your showing the "GENERAL AVIATION GROW KIT." The kit is developed by the Utility Airplane Council of the Aerospace Industries Association and distributed by Sales Training Associates, Inc., of Wichita, Kansas.

This is a professionally designed package of slide films with sound to be used with the Dukane projector and is complete with the necessary manuals. This presentation material is applicable to every type of audience—businessmen, housewives and students. All will find an interesting and informative story aimed at them in terms they can understand. It denotes the variety of tools which can be used to make the public aware of the impact of General Aviation on the economy of their community. It further denotes the safety and dependability of flying, suggests means of providing motivation for people "to want to fly"—and gives young people an example of the advantages and opportunities in aviation.

If any local groups are interested in obtaining the General Aviation Grow Kit, please contact the Film Department of the Montana Aeronautics Commission, P. O. Box 1698, Helena, Montana.

FOR SALE: 180 Cessna—1954. Beautiful new interior—fresh major—clean all over paint. Full panel—ADF—omnigator—beacon—heated pitot. Lots of extras. Price: \$7,900. Contact Philip E. Timm, P. O. Box 516, Ph.: 883-2813, Polson, Montana.

FOR SALE: 1946 Aeronca Champ 7AC—New motor and new tires, good fabric. Contact: Evald Larsen, 601 st Ave., Plentywood, Montana. Phone: 765-1130.

FOR SALE: 1947 415-C Ercoupe—860 Hrs. T.T.—40 S.M.O.H.—New Paint (Cream and Red Trim)—New Upholstery to match—Sensitive Altimeter—80 Day clock—Lear LTR/5 Radio—New bubble windshield—New Ceconite Wing covers. Priced to sell at \$2,250. Contact Rev. W. R. Leisy, Box 89, Havre, Montana. Phone: 265-2027.

with local officials pertaining to their respective problems.

Culbertson—Plans and specifications have been completed for a runway extension and pavement project on the Culbertson airport, this will consist of paving their main east/west runway and lengthening it and paving a taxiway and parking apron. This location, state and federal project will be completed later this year.

Scobey—The Daniels County Airport Commission has indicated that they will make a request for aid from the FAA in order to seal coat their northwest southeast runway and their taxiway and parking apron. They intend to get this project done this summer while there are two large road contractors in the area. This will be a local, state and federal project.

Paving—Two airport projects were started last year and inclement weather halted the construction for the season on the paving of the runway. These airports are at Poplar and Lincoln. When weather permits this summer a double bituminous surface treatment pavement will be placed on their new runways.

"AIRPORT PAVING SCHOOL"

A one day Seminar will be held at Malmstrom Air Force Base on April 13, with airport paving being the topic for the day, and is sponsored by the Asphalt Institute of America and Malmstrom Air Force Base.

The meeting will be conducted by James Burton, District Engineer for the Asphalt Institute for this area. He will discuss new methods in airport paving, repair and maintenance of runways, slurry seal coat project, automatic grade control devices and inspections of hot mix plants. Several films will be shown and general discussion periods will be held.

The school will begin at 8:30 a. m. and dismiss at 5:00 p. m.

Any person interested in attending should contact Colonel E. J. Hertel, Deputy Commander, Civil Engineering Department, Malmstrom Air Force Base.

FOR SALE: Very clean 1957 Cessna 182—recent major—dual radio (new King) ADF—full panel—heated pitot and beacon. Beautiful all over paint. Contact: Philip E. Timm, P. O. Box 516, Phone: 883-2813, Polson, Montana.

FOR SALE: Piper PA-12 in good condition—VHF radio—new license. Price: \$2,300. Contact: Philip E. Timm—P. O. Box 516, Phone: 883-2813, Polson, Montana.

"AIRMARKING"

The Montana Aeronautics Commission met on March 10 and reviewed the return questionnaires that had been sent out asking all Montana Pilots to offer their comments on either the continuance or discontinuance of the airmarking program. Approximately 2,300 questionnaires were sent out and about 1,200 have been returned to this office. From the 1,200 returned, 83% were in favor of continuing the airmarking program, 15% were against the program and 2% stated they were neutral.

Upon reviewing the questionnaires the Montana Aeronautics Commission approved the continuance of the program. Some minor revisions will be made in the program thanks to comments received from the pilots. It was felt that placing the latitude and longitude on a roof top airmarker was in most cases unnecessary, therefore, the airmarker hereafter will consist of the name of the town, north arrow, the direction and mileage to the nearest airport.

Many interesting comments were received on the questionnaires, both for and against the program, and as an example here are some of the comments:

"Any and all auxiliary aids to navigation in Montana are necessary."

"General Aviation pilots may not all have radio and so on, so airmarking helps."

"Seldom used by experienced pilots they are extremely valuable to beginners, students and visitors, radios can fail."

"I was relieved to see an airmarker last week at a most inopportune time when my radio failed."

"This saved my bacon once—keep it up."

"Once I would have traded my nice modern aircraft with all its high price navigational equipment included, for one positive position marker."

"Eliminate visual aids and we eventually eliminate VFR flight due to regulations demanding costly instruments and rated personnel for same."

Comments in opposition to the program were as follows:

"With modern radio, I feel that airmarking is no longer required."

"I have never had an occasion to use them."

"Depending on airmarkers for navigation is rather risky—good only in emergencies."

"I have been flying 20 years and never used them."

"If FAA closes Flight Service Stations in Montana a more effective program will have to be found for lost aircraft anyway."

"A well planned cross country trip should not have to rely on airmarking."

"Only mark the Forest Towers."

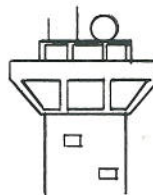
Neutral comments:

"I have used airmarkings very seldom, but when I did it came in very handy."

"If it is worth your efforts you must decide."

"I have never used them but it doesn't mean they are not useful."

MONTANA TOWER CONTROLLED AIRPORT OPERATIONS



TOWER OPERATIONS

February, 1965

	Total Operations	Instrument Operations
Helena	5,934	153
Great Falls	5,055	587
Missoula	4,969	277
Billings	4,807	730



FEDERAL AVIATION AGENCY ITINERARY LISTING

Airport	April	May	June
Bozeman (Gallatin Field)		13	
Culbertson	7		2
Glasgow		12	
Glendive	21		23
Great Falls (International)	8	6	10
Lewistown	28		30
Miles City (Municipal)		27	
Missoula	22	20	24
Sidney		26	

Note: Provisions have been made to give private pilots written examination ON AN APPOINTMENT BASIS ONLY at the following FAA Flight Service Stations:

Bozeman	Lewistown
Butte	Livingston
Cut Bank	Miles City
Dillon	Missoula

If you think you have problems—consider the plight of the glass blower with hiccups.

FOR SALE: Aeronoca Champ sprayer with 115 HP Lyc.—Sorenson unit—dump valve—New periodic upon sale. Contact: Philip E. Timm, P. O. Box 516, Phone: 883-2813, Polson, Montana.

TWO VHF/UHF DF INSTALLATIONS COMMISSIONED

The new VHF/UHF DF equipment installation was Commissioned in Billings on February 10th and at Miles City on February 13th. Following is a portion on a letter received by the Commission from George E. Corning, FAA Area Coordinator and FSS Chief, Billings, Montana, regarding these installations and two pictures supplied by Mr. Corning.

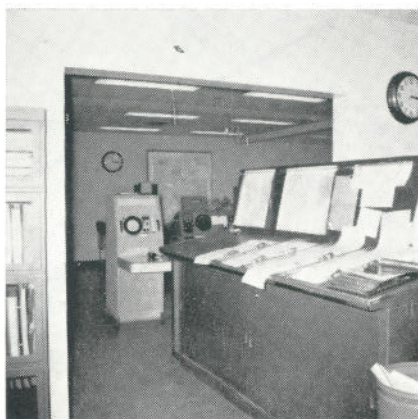


..... "The first picture shows Mr. Edward Marsh, FAA Central Region Director and myself (Mr. Corning), viewing the installation at Billings. Both facilities provide DF service on all the FSS frequencies, also can give bearing information and assistance on VHF and UHF Tower and Center frequencies.

We encourage pilots to visit either station and see how this equipment works. Also we will be glad to work practice problems with them, giving steers and bearing information. Both DF installations were flight checked for a radius of 40 NMI at 1,500 feet above the antenna elevation located on the airport. Very good results were obtained and we have picked up good solid bearing strobe lines at higher altitudes and much greater distances.

The second picture shows the new consolidated weather briefing display which was formerly in the Weather Bureau and now located equal distance in an opening between the WB and FSS. The FSS will normally provide all aviation weather briefing as of March 1st with back up assistance from Weather Bureau personnel. We think that pilots will like this one stop service. Besides our regular tele-

phone number 245-5053 another phone has been added 259-4545, from which pilots may obtain weather briefing and to file flight plans.



The new consolidated weather briefing display at Billings

We hope that this will provide a much faster and better service to the pilots stopping in at Billings."

Signed: George E. Corning
Area Coordinator and FSS
Chief, Billings, Montana

CONGRATULATIONS



CERTIFICATES ISSUED RECENTLY TO MONTANA FLYERS

Craig, Robert R., Billings—Private
Field, Lawrence H., Billings—Private
Skaggs, Robert R., Cody, Wyoming—
Instructor on C.
Merry, Daniel R., Billings—Student
Johnson, Arnold R., Fullerton, N. D.
Student
Bareman, Betty Ann, Lewistown—
Student
Ligon, Donald W., Lambert—Private
Davis, Donald C., Woodburn, Oregon—
Private
Bede, Curtis M., Glasgow—Student
Marlow, Kenneth W., Glasgow—
Private
Carmichael, Harry R., Billings—
Student
Garwood, Ralph M., Powell, Wyoming
—Student
Naylor, James M., Lewistown—
Student
Fenter, Darrel K., Billings—Student
Downs, L. Ernest, Molt—Student

Myers, Bruce T., Billings—Student
Dennis, Glenn D., Hardin—Private
Udelhoven, Andrew M., Winifred—
Private
Swanson, Clarence H., Columbus—
Instructor on P.
Hogue, Norman R., Billings—
Student
Swainson, Herbert E., Livingston—
Flight Instructor
Schweitzer, Larry L., Bozeman—
Flight Instructor
LeBarron, Dana A., Lewistown—
Reissue Private
Thompson, John C., Forsyth—Student
Sewell, Emil L., Billings—Student
Hawkinson, Jerry R., Lewistown—
Student
Lacey, Darrel J., Middletown, Ohio—
Student
Matti, Robert R., Billings—Private
Riemann, Theodore F., Jr., Billings—
Private
Arthur, Hedley J., Winifred—Student
Stephenson, Robert E., Glasgow AFB
—Comm. MEL & I. (Mil Comp)
Walters, Carl I., Glasgow AFB—
Comm. & MEL (Mil Comp)
Smith, Maynard G., Billings—Private
Jones, Warren, Billings—Helicopter
on Com.
Stewart, James R., Bozeman—Student
Johns, Kenneth C., Lethbridge, Alta,
Canada—Instr. added to Com.
Matzke, Ralph D., Lambert, Minn.
—Student
Pilgeram, Keith W., Plains—Student
Randall, Lee J., Boulder—Student
Geyer, Gary A., Big Sandy—Student
Pence, Steven W., Ballantine—
Private
Evers, William A., Bozeman—Private
Bidwell, James F., Bozeman—Private
Ellington, Daniel M., Great Falls—
Student
Grosse, Matilda C., Great Falls—
Student
Skow, Delbert P., Kipling, Sask.,
Canada—Student
Short, David A., Great Falls—Student
Nunes, Ronald L., Butte—Student
Bahr, Charles V., Yellowstone Park,
Wyoming—Student
Carlson, Ernest W., Choteau—Student
and Powerplant Mech.
Mangis, Edward Vern, Malta—Private
Langhus, Gene D., Big Timber—
Student
Abercrombie, Jerry R., Cut Bank—
Student
Leigland, Salmer A., Kremlin—
Commercial
Vogel, Raymond O., Kremlin—
Commercial
Robertson, William E., Dodson—
Private

AIRPORT NOTES

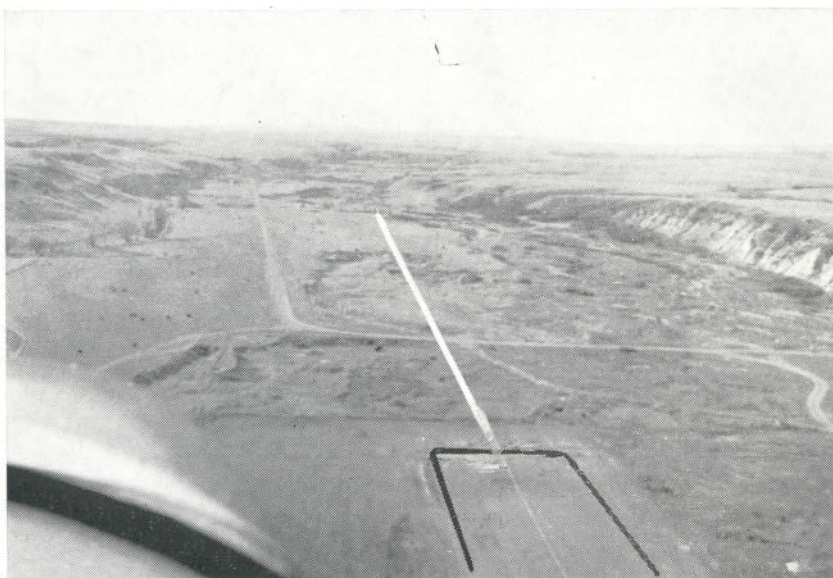


By James H. Monger
Assistant Director, Airports

Sidney—The Sidney-Richland Municipal Airport Board has retained the engineering firm of Webster, Foster and Weston of Williston, North Dakota to prepare plans and specifications for the reconstruction of the Sidney-Richland Municipal Airport. The airport board intends to have their airport enlarged this summer in order to accommodate Frontier Airlines' Convair 580. This will be one of the major airport projects in Montana during the summer of 1965 and will be a local, state and federal project. The runway will be lengthened approximately 1,500 feet and other airport improvements will be made.

Plentywood—The Sherwood airport at Plentywood has made a request for aid from the FAA for an airport improvement project this summer. They intend on placing a double seal coat over their entire runway ramp area and taxiways. Total estimated cost is approximately \$14,000 this will be a local, state and federal project.

Marias Pass—During the spring of 1964 a site investigation was made for a location for an emergency recreational airport in the Marias Pass area west of Summit, near Bear Creek. A prospective location was found north of the highway and then in June of 1964 the spring flood washed this entire area out of the question. The Aeronautics Commission will now make a new site investigation in that immediate vicinity in hopes of locating an airstrip location possibly south of the highway in a meadow that has in the past been used by some light aircraft. A flight check of this area will be necessary along with a preliminary ground survey. A great deal of timber will have to be cleared in both Clear Zones if this area is



Sidney-Richland Municipal Airport's proposed runway extension looking northwest.

acceptable from the flight check standpoint. Originally Flathead County made an application for an airstrip in this area and it appears they are still interested in sponsoring an emergency recreational airport in Marias Pass. The study will begin on this airport as soon as weather permits.

Starr-Browning—A unicom radio will be placed in the police office in Browning to serve as an Aeronautical Advisory radio station for that area. The local police department have agreed to furnish transportation from the Starr-Browning airstrip into town upon radio request from pilots. Mr. James Fisher of Browning has been instrumental in providing this facility for Montana pilots. Local service clubs in the Browning area have agreed to pay 50% of the cost of the Unicom radio and the Aeronautics Commission will pay the remaining 50% and install the radio.

Broadus—Legal questions are being rapidly cleared up on property in the Broadus area that will soon become a General Aviation Utility airport. Engineering on this project was completed last year and it is hoped that construction can start on the Broadus airport early this summer. The airport will be located one-half mile south of the town of Broadus in Powder River County.

Jordan—Engineering has been completed for a new VFR airport on the old airport site at Jordan. This airport project will consist of paving a runway taxiway and parking apron

and just recently the Garfield County Commissioners have made application to light the airport also. This project will get underway this summer and be completed this fall and will be a local, state and federal aid project.

On the Drawing Board—Presently three airports in Montana are rapidly accumulating engineering information for plans and specifications for new paved runways. These locations are Libby, Polson, and Anaconda. Libby is planning on building an entirely new airport. Polson will extend and pave their runway and Anaconda will pave their existing turf runway. All three projects will be local, state and federal aid projects and it is hoped that they can be completed this year.

Planning Stage—Meetings and site investigations are being held locally at four locations, one at Hysham, Circle, Winnett, and Laurel in hopes that these four locations can initiate airport projects this year. Presently neither Winnett or Hysham have airports and it is hoped that suitable sites can be found for general aviation utility airports at these two county seats. The Treasure County Commissioners at Hysham have made application for a General Aviation Utility Airport and the Petroleum County Commissioners have been informed of the program and it is hoped that they will make application in the near future for a new airstrip. Circle and Laurel presently have airports that are in need of major improvements and planning meetings are being held

MONTANA FLYING WEATHER SEASONAL CHANGES

**R. A. Dightman—Meteorologist
in Charge of Weather Bureau,
Helena Station, Helena, Montana**

The flying weather changes that cur from winter through spring to mmer are large in the Northern ckies, as pilots who have flown ontana a few seasons well know. me of the changes are dramatic, ch as the much greater height of ring and summer cloud tops, that metimes long-lasting and spectu- r summer afternoon thunderstorms, 2. However, some of the differences e less dramatic, but still important ough to the pilot in his flight plan- ing, to be worth mentioning as items orth thinking about.

Item 1: The fog and low stratus oblems of Western Montana valleys late fall and winter are well-own. This particular feature almost ut not quite) disappears in the ring, but when the spring classic g situation does occur, it almost al- ways ends before midmorning. Vet- an pilots have mentioned to me sev- al times their dislike of the so- lled precipitation (rain) fog that rms under spring or early summer in clouds after rain has been falling r a few hours. First appearing along llsides as little fragments or wisps thin stratus, this cloud sometimes n be spread into a low broken layer ar the ground in a short time. And this occurs near sundown, the con- tion can last until after sunrise e next morning, and can actually erge into an overcast in places. ue: watch the low cloud fragments ter rain has fallen, or after it has en raining an hour or two. The con- tion is always worst along moun- ins or hills.

Item 2: Thunderstorms are subjects warning discussions so often at is time of year, that sometimes we eteorologists begin to feel sorry for em! While they are one of weather's ore dramatic medium scale features, e don't yet understand them com- etely. We do have a lot of mis- llaneous information about them, for example, a cell (part of a understorm) has average life span 20-30 minutes; a mature storm has veral cells in various stages of de- velopment; new cells tend to form up- ind of existing cells, etc. But maybe e simplest advice is to stay clear

of thunderstorms. They are turbulent, generate gusty surface winds, and often put out hail, lightning and bursts of heavy rain. Above the freezing level, they can carry heavy clear icing conditions. Roughly, the bigger the storm, the worse it is. June, July and August are the "thunderstormiest" months—almost one day in three will be a thunderstorm day in most parts of Montana.

Item 3: A dangerous and subtle producer of turbulence is the moun- tain wave, caused by strong winds aloft blowing across the mountain ridges. This type of turbulence is quite frequent in winter because it accompanies the strong wind pattern associated with most storms; however, it reaches a peak in springtime when the strongest winds of the year occur with the change of season.

Troublesome turbulence is also found associated with cold fronts moving through mountain country. This is more of a problem in the spring when frontal activity can set off thunderstorms, often along a squall line that is hard to avoid.

There is also mechanical turbulence associated with strong surface winds blowing over rough terrain. This is most prominent in winter and spring when surface winds tend to be strong- est.

The convective turbulence season begins with the first warm days and continues through the summer into the fall. This turbulence is at its maximum at the day's warmest and almost vanishes at night, but it may continue in thunderstorm cells well into the evening.

Item 4: Icing, we all know (or should know) that icing doesn't occur in mid-winters' coldest weather—the water in the clouds is already frozen. In the spring season, or when temperature is only a few degrees below freezing point of water, most cloud droplets are still liquid. When such subcooled droplets hit something, they usually freeze during the collision process. When flying through wisps of cloud at or slightly below the freezing point, don't be surprised if icing occurs—a good point to remember when Fahrenheit temperatures are in the upper 20's and low 30's.

Carburetor icing becomes most dangerous in the spring because the moisture supply is at its peak at this time of year. This form of icing, it must be rememebered, can occur in moist air at air temperatures even

into the 40's.

Item 5: Temperature-Altitude. Helena airport elevation is 3,873 feet. Did you know that at 85° (frequently observed at Helena), the density altitude is 6,300 feet? At about 48° the density altitude is only 3,900 feet. The warmer the weather becomes, the wider the difference between density-altitude and actual altitude. And the higher the airport, the more dangerous the effect. The Montana Aeronautics Commission displays density-altitude charts in many places around the state—the next time you see one, check it over.

Pleasant flying this summer!

WESTERN REGION DECOMMISSIONS 108 AIRWAY BEACONS

Notification has been received under date of March 18, 1965 on Case No. 64-WE-270-NR that 108 airway beacons will be discontinued by regional determination following comment received relative to a regional circulation of the above case number on January 6, 1964.

In the original study presented by the FAA in the above case number, 124 specific beacon locations were listed. As this was a Western Region function none of the locations existed within geographic Montana.

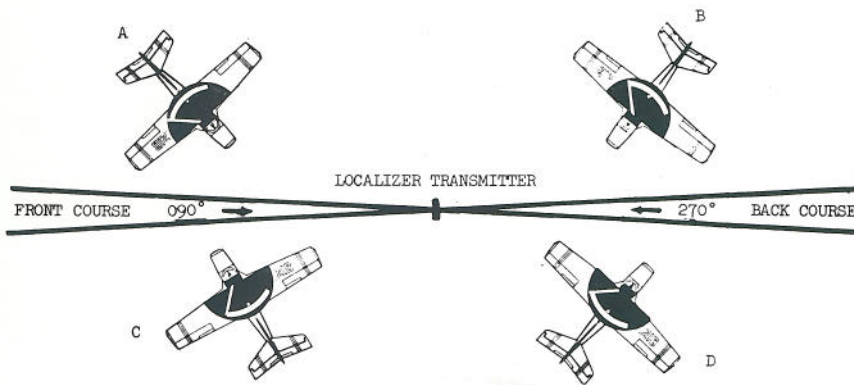
One location, however, site No. 26, Monida, Idaho, did effect Montana operations and Montana traffic.

Your Director submitted comment January 19, directly to FAA, Western Region Offices in Los Angeles and he is pleased to report at this time that Monida, site 26, is not listed as one of the above 108 airway beacon sites proposed for discontinuance. FAA has advised that further study of the remaining airway beacon lights proposed for discontinuance in the above case number has been initiated and final determination regarding these beacon lights will be made in the near future.

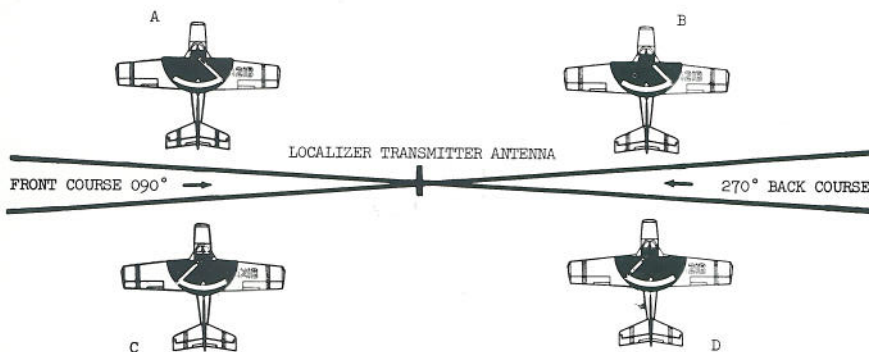
The FAA has conducted a further study of the 30 additional airway beacon lights remaining in the Western Region. Circularizations requesting public comment on these beacon lights will be made in the immediate future under Case No. 65-WE-59-NR.

"You told me how good you were when I hired you six months ago," said the sales manager to a new salesman, "but please tell me all over again. I'm getting discouraged."

(FIGURE 2)



(FIGURE 3)



THE 10TH AL WARD FLYING SCHOLARSHIP CONTEST

The International Flying Farmer Association is again pleased to announce the Al Ward Flying Scholarship Contest for 1965. This is the tenth Al Ward Contest and each year it grows in esteem in the minds of industry officials and members of the IFF. Now is the time for contestants to begin their essays. Read the rules below carefully and be sure to comply with all requirements.

Win or lose, any contestant will grow and benefit from the knowledge and experience gained from competing in this contest.

"THESE REGULATIONS GOVERN THE AL WARD FLYING SCHOLARSHIPS FOR 1965."

REQUIREMENTS CONTESTANTS

1. This contest is open to all boys and girls who have reached the age of 15 and have not passed their 19th birthday by September 1, 1965.

2. Contestant's parents must be active or associate members of International Flying Farmers, Inc., or actively engaged in farming or interested solely in agriculture.

3. Contestant must be unmarried.
4. Previous international winners are not eligible to compete.

TO ENTER

Mail entry and photograph to the president of the Flying Farmer organization of the state or province in which contestant resides.

EARL C. KEISTER
BOX 7
CONRAD, MONTANA

AWARDS

First Place	18 hours
Second Place	15 hours
Third Place	12 hours
Fourth Place	9 hours

Certificates stating the name and placement of the winners are presented at the International Convention. Winners choose their instructor and upon presentation of the name of their instructor following enrollment in the flying course, the instructor receives payment direct from Al Ward. Winners are also presented a plaque at the convention.

ENTRY

1. Story form essay written after research in the field of aviation.
2. Subject: "Aviation-From 1920 to 1945."
3. Essay must be of not more than 500 words.

4. Entry must be typewritten.

5. Entry must first be submitted to the state or province chapter of the Flying Farmer association in which the contestant resides.

6. Each state or province will hold a separate contest and will judge all entries submitted to their state or province chapter.

7. One winning entry from each state or province chapter will be forwarded to International Flying Farmers, Inc., and must be accompanied by a recent medical certificate, a photograph of the contestant and three copies of the winning entries.

8. The state or province winning essays must be received at the international headquarters in Wichita by July 1, 1965.

9. International judging will be held at least thirty (30) days prior to the International Convention and winners will be notified as soon as possible.

10. An international winner must attend the International Flying Farmers Convention at Omaha, Nebraska, August 8-13, 1965.

SUGGESTED REFERENCES

Balloons to Jets, Scamehorn; Complete Book of Helicopters, Ahnstrom; The Flying Years, Buchanan; A History of Aircraft, Magoun and Hodgins; Man's Fight to Fly, Heinmuller; The Saga of Flight, Duke; Seaplane Flying and Operations, Fogg, Strohmeier and Brimm; The Story of Aviation, Cooke; Encyclopedia Americana, Encyclopedia Britannica, and Colliers Encyclopedia.

The Aeronautics Commission believes the Al Ward contest to be extremely worthwhile and deserving of whatever encouragement and assistance that is extended to the Flying Farmers and this program.

If anyone knows of a boy or girl eligible for entry, please contact them and if you wish further information contact the International Flying Farmers, Inc., Municipal Airport, Wichita, Kansas 67209, or Montana FF President Earl Keister at Conrad. If you would care to obtain a printed copy of the requirements and entry regulations, write to the Montana Aeronautics Commission, P. O. Box 1698 in Helena.

FOR SALE: Cessna 180-1955-TT 2250-TOH at 1900-MOH at 1350-full panel-ADF-LTRA-6 W/meter-full paint and wind gear-annualled 2/65-engine good condition. Price: \$6,500. Contact: James Updike, Glendive, Mont. Phone: 365-2928.

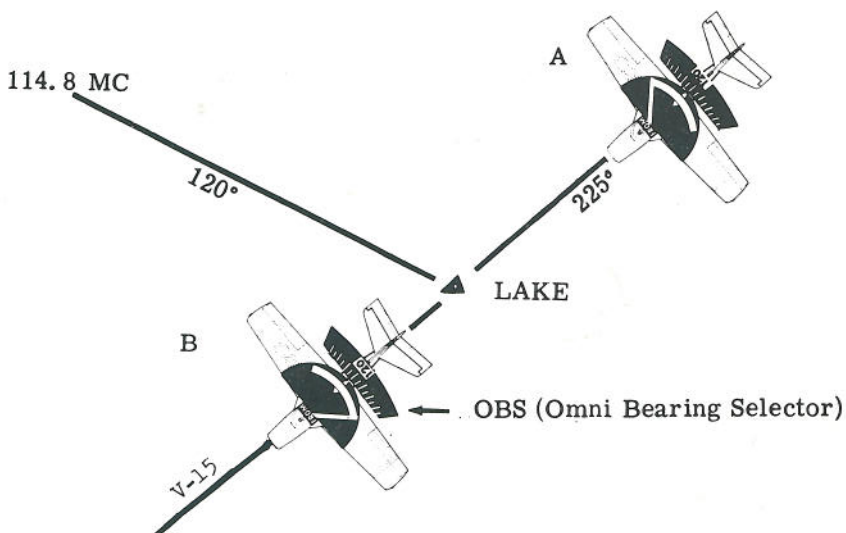
Jarrett, David C., Billings—Student
 Sherrick, Paul M., Polson—Student
 Brown, Earl R., Jr., Great Falls—
 Student
 Sturdevant, Harold L., Missoula—
 Private
 Koch, Dorothy A., Missoula—Private
 Hall, Marilyn Joyce, Havre—Student
 Stevens, Harvey S., Missoula—Student
 White, Ralph W., Great Falls—Doug.
 DC-3 added to Com. MEL N. Am
 B-25, Instr. (Mil Comp)
 Hebbelman, John H., Jr., Chinook—
 Airframe Mechanic
 Coats, Gerald Roger, Great Falls—
 Com.
 Cornell, John T., Lewiston, Idaho—
 Student
 Nielsen, Stanley H., Somers—
 Private exchanged
 Field, Charles R., Butte—Student
 Rankin, George J., Ferdig—Student
 Conner, Delbert A., Darby—Private
 Roe, Burgess L., Portsmouth, Va.—
 Private
 Radabah, Ronald S., Kalispell—
 Student
 Haigler, Claude S., Great Falls—Com.
 Privileges ASEL added to ATR.
 AMEL, DC-3
 Voden, John M., Great Falls—
 Student
 Johnson, Wayne G., Preston, Idaho—
 Student
 Johnson, Max G., Preston, Idaho—
 Student
 Jenkins, Larry T., Helena—Student
 Kolstad, Clark E., Chester—Student
 Anderson, Robert L., Great Falls—
 Doug. DC-3, added to Com. MEL,
 N. Am. B-25 Instrument.

FEDERAL AVIATION AGENCY INSTRUMENT PILOT EXAM-O-GRAM NO. 7

CDI Interpretation

Recurring errors in Instrument Pilot Written Examination test items requiring interpretation of the CDI (course deviation indicator) of the omni receiver indicate that many applicants for The Instrument Pilot Rating do not thoroughly understand this portion of the omni display. Errors are particularly prevalent in situations where it is necessary to relate aircraft position to an intersection, or to an ILS localizer course, from the indications of the CDI. The illustrations that follow will help you prepare for questions in this area, and will be useful, as well, for practical application in flight.

(FIGURE 1)



You are established on V-15 flying southwest. You wish to know your position relative to Lake Intersection. To obtain this information you set up the Omni using the following method:

- (1) Set the frequency selector to the frequency of the VOR station that is used to establish the intersection. (114.8 mc. in Figure 1).
- (2) Set the OBS to the desired radial FROM the station (120 degrees in Figure 1).
- (3) The TO-FROM display will indicate FROM.

When the receiver is set up in the manner described above, the following statements will always be true.

Before passing the intersection or "fix", the CDI will be deflected in the direction of the VOR station that established the intersection. (See Figure 1, aircraft A). After passing the intersection, the CDI will be deflected away from the VOR station that establishes the intersection. (See Figure 1, aircraft B)

The above method utilizes the FROM-sensing of the omni receiver. The TO-sensing method may be used, but it must be remembered that the CDI indications will be the reverse of those shown on aircraft A and B in Figure 1. The important point is to select one of these methods to use, and know perfectly what the indications are going to be.

If the omni receiver is used on the ILS function it is a TO-sensing receiver, the OBS has no effect on the CDI, and the TO-FROM display is not functional. When using the omni receiver on the ILS function to inter-

cept an ILS localizer course, the following information should be remembered.

- (1) When the interception heading of the aircraft is within 90 degrees of the front course inbound bearing, the CDI will be displaced in the direction of the localizer course. (See Figure 2, aircraft A and D)

- (2) When the interception heading of the aircraft is within 90 degrees of the inbound bearing of the back course, the CDI will be displaced away from the localizer course. (See Figure 2, aircraft B and C)

- (3) If an aircraft interception heading is exactly 90° to the localizer course bearing and it is in position to intercept the front course of the ILS, the CDI will be deflected away from the localizer transmitter antenna before interception of the localizer, (see Figure 3, aircraft C) and deflected in the direction of the transmitter antenna after passing through the localizer (see Figure 3, aircraft A). (The localizer transmitter antenna is located on the center line and approximately 1,000 feet beyond the far end of the ILS runway.)

- (4) If an aircraft interception heading is exactly 90° to the localizer course bearing and is in position to intercept the back course of the ILS, the CDI will be deflected in the direction of the localizer transmitter antenna before interception of the course, (see Figure 3, aircraft D) and deflected away from the transmitter antenna after passing through the localizer. (See Figure 3, Aircraft B)

See figures 2 and 3 on opposite page.

MONTANA PILOTS' ASSOCIATION ANNUAL CONVENTION



Following is the schedule of highlights of the MPA Convention to be held April 30, May 1, and May 2 in Lewistown.

Friday, April 30

5:30 P.M.—Social Hour

Saturday, May 1

9:00 A.M.—Business Session opens

12:30—Business Session closes
1:30—Fly-In barbeque at Winifred Airport

Afternoon—Visits to Radar Base and Fish Hatchery

5:30-6:30—Social Hour

7:00—Banquet, Mr. William Piper, Sr., guest speaker

10:00—On and on—Big Dance at Eagles Hall

Sunday, May 2

8:00 A.M.—Breakfast at Betty's Airline Cafe

A really Big Show—Lewistown Day

at Airport. Spot landing and bombing contests; rides for everyone. Parachute jumping, Fly-by of Air National Guard jets and static display of new aircraft, civilian and military.

Registration: Convention tickets are \$10.00 per person, \$15.00 per couple. **Note**—This price includes all events, dinners, free drinks, etc.

To all members: This sounds like a definite "Do Not Miss" event. Let's not have a big turnout—let's have a **HUGE** turnout!

MEMBER

NATIONAL ASSOCIATION OF STATE AVIATION OFFICIALS

PURPOSE:—"To foster aviation as an industry, as a mode of transportation for persons and property and as an arm of the national defense; to join with the Federal Government and other groups in **research, development, and advancement of aviation**; to develop uniform laws and regulations; and to otherwise encourage co-operation and mutual aid among the several states."

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